THE EFFECT OF ICT OUTSOURCING ON THE PERFORMANCE OF TANZANIA POLICE FORCE

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT MANAGEMENT OF THE OPEN UNIVERSITY OF TANZANIA

2018

CERTIFICATION

The undersigned certify that she has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled: ***"The Effect of ICT Outsourcing on the Performance of Tanzania Police Force"*** in partial fulfillment of the requirements for the Degree of Master of Project Management of the Open University of Tanzania.

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Dr. Hawa Uiso

(Supervisor)

……..……..…

Date

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DECLARATION

I, **Atugonza J. Bamanyisa**, do hereby declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

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Signature

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Date

DEDICATION

To my late father Joas Bamanyisa, whose immeasurable motivation led me into taking this course, my mother Mary Bashube, for praying and encouraging me and to my husband Aggrey J. Mhepela for his unending support in accomplishing this course.

ACKNOWLEDGEMENT

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Special thanks to TPF especially the departments of ICT, statistics; Cyber Crime and Fingerprint for their trust and concern to allow me undertake the field practical work and collect data for my report writing. Finally, and most importantly, I want to express my gratitude to my mother Mary Bashube for simplifying my daily activities hence giving me an ample time to write the research. I also want my husband to know that there aren't enough words to express my gratitude for his understanding and moral support.

ABSTRACT

This research study sought to examine the effect of outsourcing ICT projects on the performance of Tanzania Police Force. The study adopted a cross sectional descriptive research design using a mixed approach. Purposive sampling technique was used to obtain a sample size of 62 respondents. Questionnaires and document review were the tools used to collect data. Quantitative data analysis using mean, correlation and regression analysis was used. Qualitative data analysis was done using content analysis and data were presented in statements. The findings showed that there was a significant relationship between ICT projects outsourcing and cost reduction, quality of services and employee motivation. Secondary data indicated that outsourcing is more expensive than in-house sourcing. Also the study found that TPF outsourced for the wrong reasons including corruption and self interest, favouritism/nepotism, politics and fear for accountability. The conclusion reached was that ICT projects outsourced did not achieve the intended objectives of cost reduction, increased credibility and reputation of the Tanzania Police Force. The study recommended more involvement of ICT professional Police officers in decision making involving outsourcing of ICT projects. The study recommended future studies to be conducted in other sectors to see if similar results will be obtained or conduct the same study using a different methodology.

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LIST OF ABBREVIATIONS

AFIS	Automated Fingerprint Information System
DMKL	Del Monte Kenya Limited
ICT	Information Communication Technology
IS	Information Systems
IT	Information Technology
OMIS	Offender Management Information System
PHQ	Police Headquarters
PPOA	Public Procurement Oversight Authority
TCE	Transaction Cost Economics
TMS	Traffic Management System
TPF	Tanzania Police Force
USA	United States of America
WAN	Wide Area Networks

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Over the past few years, ICT outsourcing has become very popular. With outsourcing, a lot of resources and attention that might burden management professionals can be handed over to other professionals outside the organization. The growing interest in outsourcing over the years from Western and Eastern countries to the African countries is due to the benefits associated with it (Mpambara *et al.,* 2017). 36 to 46% of private and public service enterprises in the USA and Europe outsource in order to focus more on their core competences (Kakabadse and Kakabadse, 2001). There is an old saying that 'no man is an island' (Donne, 1624). The same can be said for an organization where, especially in this era of globalization, it is very rare to find one that is ready to take upon all the ICT responsibilities on its own. The reality for most organizations is that the rate of technological change has been extremely fast. To cope with these changes, some organizations are committing a large amount of resources to invest in ICT (Choudhuri and Maguire, 2009). World Bank (2002) pointed out that there is a daily rapid development of ICT and the development of every country depends on it.

Due to this, Tanzania experiences pressure and challenges as it opts to outsource ICT to make use of the latest technology. While outsourcing is a powerful tool to cut costs, improve performance and refocus on the core business, outsourcing initiatives often fall short of management's expectations (Barthélemy, 2013). Barthélemy added that leaders tend to focus on shortterm cost reduction and let the good planning slide.

Researchers have been preaching about the consequences of poor management of outsourcing for years. For example, after a survey of nearly hundred outsourcing efforts in Europe and the United States, Baitheiemy (2013) found seven of what he called “deadly sins” that lead to most failed outsourcing effort: these include outsourcing activities that should not be outsourced, selecting the wrong vendor, writing a poor contract, overlooking personnel issues, losing control over the outsourced activity, overlooking the hidden costs of outsourcing and failing to plan an exit strategy (i.e. vendor switch or reintegration of an outsourced activity).

1.2 Statement of the Problem

Software engineering Institute technical report (2010) revealed that 20 to 25 percent of large IT acquisition projects fail within two years and 50 percent fail within five years. While some organizations find outsourcing ICT projects cost saving, others due to certain misgivings that come along with outsourcing, prefer in-house implementation. Mohamud and Amuhaya (2015) said that the increase in outsourcing has resulted in lower staffing levels, reduced costs and increased flexibility.

However, Maurice (2017) insisted that an organization’s performance can only be achieved through linking its employees as team work behaviour to the organization’s business strategies, goals, and values. With this in mind, Yeboah (2013) pointed out that outsourcing can damage morale and motivation in the organization and may pose a threat when quality is a key concern for the outsourced work as intellectual capital and knowledge could be lost. Outsourcing is a make-or-buy decision making strategy which has become very crucial in most organizations. There are some conflicting views on the performance implication of outsourcing ICT projects in organizations. It

is with this uncertainty that this research needed to conduct an investigation on the effect of outsourcing ICT projects on the performance of the Tanzania Police Force.

1.3 Objectives

1.3.1 General Objective

The main objective of the research is to assess the effect of ICT outsourcing on the performance of Tanzania Police Force.

1.3.2 Specific Objective

(i) To determine the relationship between ICT outsourcing and TPF cost reduction.

(ii) To determine the relationship between ICT outsourcing and service quality.

(iii) To find out the relationship between ICT outsourcing and employee motivation.

(iv) To identify the number of ICT projects outsourced by Tanzania Police Force.

1.4 Research Questions

(i) What is the relationship between outsourcing and TPF cost reduction?

(ii) What is the relationship between outsourcing and service quality?

(iii) What is the relationship between ICT outsourcing and employee motivation?

(iv) What are the ICT projects outsourced by TPF?

1.5 Significance of the Study

This study is a prerequisite for accomplishing my MPM programme and it has helped me to have a deeper and broader knowledge base on the effects of ICT outsourcing on performance of the Tanzania Police Force. It will also help Tanzania Police Force to raise their awareness on the effect of ICT outsourcing on organizational performance.

This will increase their confidence in altering and or strengthening their reasons to outsource and include in-house experts in decision making. Nevertheless, the organization performance will be improved through the exploration of the identified challenges/obstacles associated with ICT outsourcing.

1.6 Organization of Study

This study is organized into five chapters: Chapter one covers the background information to the statement of the problem and defines the study objectives. Definitions of basic concepts, theories supporting the study and empirical literature review are addressed in chapter two. Chapter three covers the methodology used. Findings and discussions are addressed in chapter four. Chapter five presents the conclusion and recommendations together with directions for future study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This Chapter covers definition of basic concepts used in the study, theories supporting the study, empirical literature review, and conceptual framework.

2.2 Definition of Terms and Concepts

2.2.1 Information and Communication Technology (ICT)

ICT is a set of various technological tools/devices and application/system used to create, transmit, circulate, store, and manage information (Dehning and Richardson, 2002). Some of the ICT devices include computers, telephones, faxes, radio calls, Television, radios, network devices like routers, internet, switches, internet cables, servers, CCTV etc. Examples of applications/systems are Offender Management Information System, payroll system, Criminal Record system, whatsApp, facebook, websites, and web mails. (Dehning and Richardson, 2002).

2.2.2 Outsourcing

Outsourcing is the act of obtaining goods or services from individuals or organizations outside of a firm's boundaries when those goods or services could be created internally by a firm's own employees and managers (Brown and Wilson, 2005). Outsourcing is a make-or-buy decision making strategy. A panel of experts/decision makers in the organization may have satisfying evidence that if the organization decides to produce products or deliver services in-house, it will spend more money and use more time. In addition products or services will have lesser quality than if

they were assigned to another more capable, competent and experienced organization. At this point, the organization may decide to assign the project/production/delivery to another organization.

2.2.3 Organization Performance

Organizational performance is the accomplishment of a set of activities or projects of an organization as measured against their earlier expected outputs, goals and objectives. Richard *et al*., (2009) considered organizational performance to include financial performance (profits, return on assets and return on investment.), product market performance (sales and market share) and shareholder return (total shareholder return and economic value added.). However, this study used quality of services, reduced cost and increased traffic earnings to measure the performance of TPF as far as outsourcing ICT projects is concerned.

2.2.4 ICT Projects Outsourcing

It can be defined as the delegation, through a contractual arrangement, of ICT projects of an organization to other organizations which can effectively accomplish them. Projects have a start time and end time, goals and objectives (Mohamed and Arshad, 2013). ICT projects like any other project needs an available budget, skilled and experienced team and environment that is conducive for optimum performance. If the vendor has all the above, the outsourcing organizations will be sure to receive the project on/in time.

2.2.5 Police Force

This is a government organization whose main goal is to enforce the law, protect citizens and their properties, prevent and detect crime (Policy studies Institute, 2009).

It is also responsible to keep peace and order in the country. This study was mainly concerned with the Tanzania Police Force. In order for a Police Force to perform its duties effectively, it needs ICT technology to be accessed easily by the people they serve.

2.3 Theoretical Literature Review

2.3.1 Power and Politics Theories

These theories assume that power, idiosyncratic interests, and politics play major roles in organizational decision-making (Pfeffer, 1981, 1982). These theories concentrate on the relationships between individuals, groups, and organizations (Dibbern *et al*., 2004). Tanzania Police Force is an armed government force of trained officers of different rankings. Each Police officer has great discipline and respect for the seniors and those with higher ranks. Juniors receive orders from their seniors and they are supposed to implement them without questioning. Also the force receives orders from political figures. All Police officers with higher rankings have higher degree of power in decision-making. Likewise, powerful political figures influence certain decisions made by the force. Power is different from politics. Pfeffer, (1981) differentiates these two concepts as: "power is a property of a system at rest; politics is the study of power in action". These theories imply that power is a potential of an actor to influence the behaviour of another actor on a particular issue within a social system (Tushman, 1977). The powerful politicians and higher ranking Police officers control the budget, physical resources, activities that should be done and who to do them. This study used power and politics theories to investigate the effect of power and political tactics on outsourcing decisions.

2.3.2 Agency Theory

Specifically, Agency theory is directed at the ubiquitous agency relationship, in which one party (the principal) delegates work to another (the agent), who performs that work (Eisenhardt, 1989**).** Eisenhardt, (1989) added saying because the unit of analysis is the contract governing the relationship between the principal and the agent, the focus of the theory is on determining the most efficient contract governing the principal-agent relationship given assumptions about people (e.g., self-interest, bounded rationality, risk aversion), organizations (e.g., goal conflict among members), and information (e.g., information is a commodity which can be purchased).

The theory goes on saying outcome-based contracts are more effective in restraining agent opportunism and that once the principal has information to verify agent behaviour; the agent is more likely to behave in the interests of the principal. Agency Theory assumes that the interests of principals (outsourcer) and agents (service provider) are inclined to diverge, resulting in agency loss, gap expectations, different goals and value loss to the contract (Felix, 2017). The study used this theory to examine supplier-buyer relationship and supplier selection process.

2.3.3 Transaction Cost Economics

Williamson (1981), being the most contributor to this theory said that Transaction costs consist of costs incurred in searching for the best supplier/partner/customer, the cost of establishing a supposedly "tamper-proof" contract, and the costs of monitoring and enforcing the implementation of the contract. He added that the theory asks which activities should be performed within the firm, which outside it and why. The study

chose this theory and used it to study the relationship between outsourcing and cost reduction at TPF.

2.3.4 Theory of Performance

Performance evaluation is an organization's ability to exploit its environment for accessing and using the limited resources (Yuchtman & Seashore, 1967). Georgopoulos and Tannenbaum, (1957) stressed that indicators of performance are both financial and nonfinancial which give information on the extent of objectives and results achievement. According to Georgopoulos and Tannenbaum, nonfinancial indicators include work (quality), people (motivation) and organizational structure (leadership). Elger (2000) said that developing performance is a journey, and level of performance describes location in the journey. These levels determine the effectiveness of a performance. According to the theory a high level of performance can be in terms of increases in quality of services, capability, capacity, knowledge, skills, identity and motivation or decrease in costs. The theory further considered performers' mindset and their influence on performance improvement. The study used this theory to determine and study the dependent variables of TPF performance.

2.4 Empirical Literature Review

2.4.1 Empirical Studies in and Outside Tanzania

Yeboah (2013) conducted a study to examine the relationship between outsourcing and organization performance focusing in the service sector of the 50 banking and insurance firms in Ghana. Like in this study, Yeboah (2013) used purposive sampling to select the number of respondents. He used a similar quantitative method as used in this study to analyze the collected data from questionnaires.

His findings showed there was a statistically significant relationship between outsourcing and quality of services. He found reducing and controlling operation costs being the most leading reason that motivated organizations to outsource. His findings were supported by the study done by Buel *et al.*, (2001); Kakabadse and Kakabadse (2002) and Kern and Willcock, (2002) who noted that organizations outsourced in order to reduce cost and remain competitive. He added that outsourcing improved the focus organizations which was supported in the study by Dahlberg and Nyrhinen (2006) and Heus (2007) who said that outsourcing routine IT activities enabled existing staff to concentrate on organization core activities.

On the other hand, there were several researchers who pointed out more similar reason for organizations to outsource as those stated by Yeboah (2013) for example: (Cheshm and Mortazavi, 2009) pointed out that organizations opted to outsource ICT to enable their employees to acquire knowledge from the other organizations while Dahlberg and Nyrhinen (2006) claimed that outsourcing helped to establish a well functioning IT environment. Organizations outsourced IT to ensure the availability of necessary or new IT skills and technology (Costa, 2001). Continuous need to improve efficiency and effectiveness in organizations was one of the main drivers for IT outsourcing (Lin and Pervan, 2001). Lacity and Willcocks (2001) claimed that organizations outsource to improve quality of IT services in terms of reliability, responsiveness, assurance and empathy.

Another study was conducted by Mohamed and Iravo (2015) titled Effects of Outsourcing of Non-core Services on Organizational Performance of the Public Procurement Oversight Authority (PPOA) in Kenya. The study aimed at examining

the effects, benefits and problems of outsourcing non-core services on PPOA. Unlike in this study where purposive sampling was used, he used stratified random sampling to select 75 respondents.

The study found that supplier selection process, relationship management, contract management and organizational resources were crucial element in outsourcing of noncore services that influenced organizational performance at PPOA. Also the study noted that there existed a very strong positive relationship between factors of outsourcing of noncore services influencing organizational performance at PPOA. The noncore services included supplier selection process, relationship management, contract management and organizational resources.

The study concluded that the outsourced services at PPOA significantly increased the performance of the organization. Also management at PPOA was keen and skilled that the contractors were better for the job. Barthelemy (2013) outlined what he called "the seven deadly sins" of outsourcing. His findings were based on intensive inspection of academic literature and an in-depth survey of 91 outsourcing cases. The study used detailed questionnaires and interviews to obtain primary data. He considered the "seven deadly sins" of outsourcing to be: outsourcing activities that should not be outsourced, selecting the wrong vendor, writing a poor contract, overlooking personnel issues, losing control over vendor, overlooking the hidden costs of outsourcing and failing to plan an exit strategy. This point was supported by other researchers such as; Merton (1996) who claimed that ignorance, error, corruption, basic values and self-defeating prophecy are possible causes of unanticipated consequences of outsourcing. Dabholkar *et al.,* (2000); Beaumont

(2004) and Hirschheim *et al.,* (2004) considered issues like security of data and confidentiality and more importantly hidden costs which was a big problem in the outsourced ICT projects at TPF. More to that, Hirschheim and his colleagues found there was loss of IT expertise, loss of innovative capacity and loss of flexibility. Arshad (2007) added that there was lack of a specific standard for project documentation.

The study concluded that outsourcing is a way for firms to cut costs, improve performance, and focus their limited resources on their core business. Additionally, another study was performed by Kamanga and Ismail (2016) titled Effects of Outsourcing on Organization Performance in Manufacturing Sector in Kenya. The study using correlation and regression analysis as used in this study and aimed to determine whether cost, quality, technology adaption and risks affected organizational performance of Del Monte Kenya Limited (DMKL). Unlike in this study, census survey method was used to pick 42 sample respondents.

The study found out that cost, quality, technology adaption and organization performance had a significant strong positive relationship and that the relationship between risks and organization performance was insignificantly positive and weak. He pointed out that DMKL had succeeded in reducing total cost as outsourcing had reduced direct operating costs, eliminated overhead costs and transformed fixed costs into variable costs.

Last but not least, a study done by Sumari *et al.,* (2013) on outsourcing in Cooperatives in Tanzania assessed the contribution of outsourcing on organisational

performance. Contrary to this study, he used stratified sampling to select 91 study respondents.

The study found that most of cooperative organisations were not familiar with outsourcing and outsourcing strategies. These strategies were outlined in the study done by Perunovic *et al*., (2007) who addressed the issues of preparation, vendor selection, transition, managing relationship and reconsideration. The results of this study showed that this problem also faced TPF.

2.4.2 Summary of Empirical Literature Review

Table 2.1: A Summary of Empirical Literature Review

Author (Year)	Title of the study	Methodology	Findings
Kamanga and Ismail (2016)	Effects of Outsourcing on Organization Performance in Manufacturing Sector in Kenya	Correlation and regression methods	Cost, quality, technology adaption and organization performance had significant strong positive relationship with outsourcing
Mohamed and Iravo (2015)	Effects of Outsourcing of Non-core Services on Organizational Performance of the Public Procurement Oversight Authority	Correlation method	Supplier selection process, relationship management, contract management and organizational resources were crucial element in outsourcing of noncore services that influenced organizational performance
Yeboah (2013)	The Relationship between Outsourcing and Organizational Performance	Correlation and regression methods	There is statistically significant correlation between outsourcing and quality.
Sumari *et al.* (2013)	Outsourcing in Cooperatives in Tanzania: Assessing the Contribution of Outsourcing on Organisational Performance	Regression method	68.1% of the cooperative organisations were not familiar with outsourcing and outsourcing strategies
Barthelemy (2013)	The seven deadly sins of outsourcing	Content Analysis	The deadly sins of outsourcing are; (i) Outsourcing activities that should not be outsourced: (ii) selecting the wrong vendor: (iii) writing a poor contract: (iv) overlooking personnel issues: (v) losing control over vendor: (vi) Overlooking the Hidden Costs of Outsourcing: (vii) Failing to Plan an Exit Strategy.

Source: Researcher (2017)

It was also found that cooperative organisation undertook outsourced activities in order to reduce cost and manpower, improve delivery and reliability of services, to focus on core organisational competencies as well as to make use of resources not available in the organisation. The study concluded that, despite the fact that cooperative organisations had achieved significant improvement in organizational performance by outsourcing, they had not reached the magnitude of improvements ascribed to outsourcing strategies.

2.5 Research Gap

Several research papers have talked about ICT outsourcing in various aspects. All studies in the empirical literature review used only theories of outsourcing despite the fact that they were dealing with how outsourcing had affected organizational performance. None used the theory of performance.

2.6 Conceptual Framework

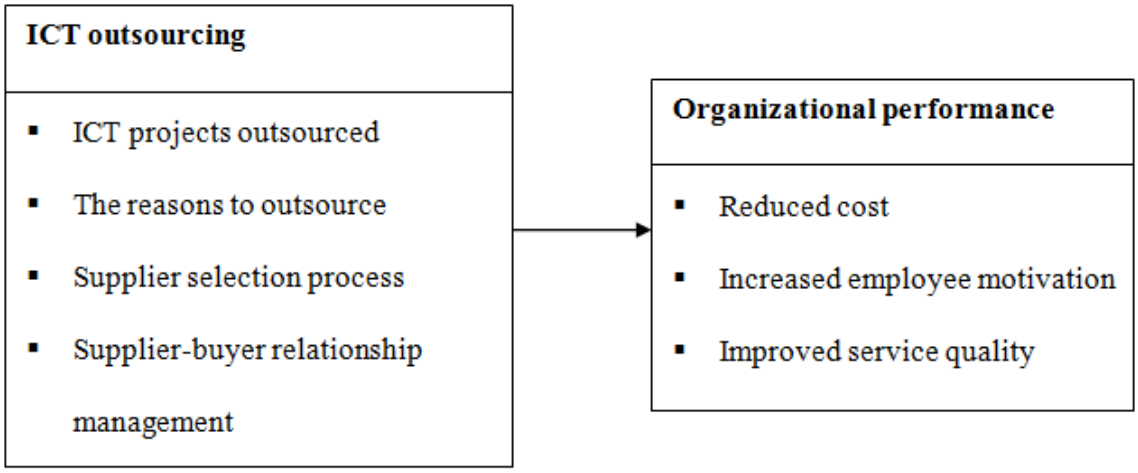

Figure 2.1: Conceptual Framework

Source: Researcher (2017)

Most of the studies were conducted outside Tanzania (Kamanga and Ismail, 2016; and Mohamed and Iravo, 2015; in Kenya, Barthelemy, 2013 in America and Yeboah, 2013 in Ghana) hence there is a contextual gap to be covered by the current study. Only one study took place in Tanzania and it dealt with private sectors (cooperatives). None of the past studies took place in Tanzania and dealt with government institutions especially the police force. This study sought to fill these gaps.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This chapter covers reseach philosophy, research design, study area, study population, sample size, data collection technique and methods, sampling design and procedures, Validity and Reliability of the research instrument and Data analysis methods.

3.2 Research Philosophy

According to Saunders and Thornhill, (2007) research philosophy is a belief about the way in which data about a phenomenon should be gathered, analysed and used. Creswell (2003) asserts that if a research is quantitative it will take a post-positivism philosophical stance, or surveys or experimental knowledge claim and if is qualitative it will take an interpretive philosophy. This study used positivism philosophy to quantitatively predict and measure the variation in reasons to outsource, supplier selection process and supplier-buyer relationship management in TPF performance as far as ICT outsourcing is concerned. On the other side, interpretive views were used believing that there were truths and realities from the outsourced ICT projects in relation to TPF performance.

3.3 Research Design

The study adopted a cross sectional descriptive research design involving both quantitative and qualitative approaches. Under descriptive design, the study employed the survey method where interviews and discussions were conducted with the participants.

3.4 Study Area

There are Police stations all over the country, but due to the fact that all decisions that affect the organization are made at the headquarters, the study focused in Police headquarters in Dar es salaam region.

3.5 Study Population

In analyzing the effect of ICT outsourcing on TPF performance, the study focused on the users of outsourced ICT systems at PHQ. The population included departments of ICT (N_1 =59) and Forensic (N_2 =14), all of which summed up to a population of 73 employees.

3.6 Sample Size

Purposive sampling technique was used to obtain a sample size of 62 respondents.

The mathematical formula used to obtain sample size was as follows:-

$$n = \frac{N}{1+Ne^2}$$ (Slovin, 1960)

Where;

n = number of samples

N = total population

e = error margin

Table 3.1: Sample Size Distribution

Type of respondent	Number of respondent expected	Questionnaire distribution (%)	Questionnaire returned	Percentage questionnaire returned (%)	Sample Technique
Chief ICT	1	1.4	1	1.6	Purposive sampling
Chief Signal	1	1.4	1	1.6	Purposive sampling
Project manager	1	1.4	1	1.6	Purposive sampling
Staff officer	1	1.4	1	1.6	Purposive sampling
Supervisors	7	9.6	7	11.3	Purposive sampling
ICT Technicians	48	65.8	39	62.9	Random Sampling
Forensic staff	14	19.2	12	19.4	Random Sampling
Total	**73**	**100.0**	**62**	**100**	

Source: Researcher (2017)

3.7 Data Collection Methods and Techniques

This study used different methods and instrumentations all of which are categorized under two main techniques;

3.7.1 Secondary Data Collection

The written information from ICT security and standard hand books, Police ICT applications outsourcing contracts, Police ICT Master Plan, Police ICT projects Plan

and ICT Police officers' professionalism document were reviewed to obtain information related to ICT outsourcing.

3.7.2 Primary Data Collection

Structured Questionnaires were used to collect information from users of outsourced system. The questionnaires aimed to collect data about the reasons behind ICT project outsourcing at TPF, how well the relationship between TPF and the vendors is and how professional supplier selection process is. The questionnaire aimed at establishing whether the outsourced ICT projects had reduced organization costs or motivated employees or even improved the quality of service at TPF.

3.8 Data Analysis

The data collected was analyzed with respect to the specific objectives using descriptive statistics and multiple regression method. Quantitative data was analyzed using SPSS Software whereby correlation analysis was used to determine if there was a significant relationship between variables, (outsourcing and cost reduction, outsourcing and quality of services). Multiple Regression analysis was used to measure the variation/relationship between dependent variable (TPF performance) and independent variables (supplier selection process, supplier-buyer relationship and reasons for outsourcing). Likewise, frequency distribution tables were used to analyze and present data for interpretation.

3.9 Definition and Measurement of Variables

This research used 5 points Likert Scale to measure its variables as table 3.1 shows. Unfortunately the research was unable to obtain all actual figures to measure the

variable ‘reduced cost’ in comparison to cost of ICT projects before and after outsourcing. Instead, questionnaires were used to obtain employees’ perceptions on whether the outsourced ICT projects really contributed to reduced costs at TPF.

Table 3.2: Measurement of Variables

Types of Variable	Name of Variable	Definition of variable/Measurement
Dependent	Organization (TPF) performance	Reduced costs, Improved service quality, Increased employee motivation 5 points Likert Scale was used
Independent	ICT outsourcing	Reasons to outsource, Supplier Selection Process and Supplier-buyer Relationship Management 5 points Likert Scale was used

Source: Author (2016)

3.10 Validity and Reliability

Validity according to Maxwell (1996) refers to correctness or credibility of a description, explanation, interpretation, account or conclusion. To ensure validity, the researcher used structured interviews which allowed the researcher to cross check the accuracy of the information provided previously. The researcher also discussed the research instrument with experts in the field to ensure clarity of the questions. All ambiguous questions were dropped. In the same line, Ott and Larson (cited in Ballinger, 2000) stated that validity refers to whether the variables “measure what they are intended to measure”. Three validity tests were identified namely criterion,

content and construct validity. Whilst reliability refers to the degree to which the same results would be obtained in repeated attempts of the same test (Ballingers, 2000). To ensure validity, the researcher used structured interviews which allowed the researcher to cross check the accuracy of the information provided previously. To test reliability of data collected, the instrument Cronbach's Alpha was used to measure the internal consistency. Cronbach's Alpha ranges from 0 to 1 (Grayson, 2004). The closer the Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale.

3.11 Multiple Regression Analysis

A multiple regression model was used to determine the effect of ICT outsourcing on organizational performance in this case TPF. The multiple regressions used in this model was;

$$OPtpf = \beta_0 + \beta_1 SSP + \beta_2 SBRM + \beta_3 RO + \varepsilon_0$$

Where;

OPtpf - organization performance (TPF)

SSP - Supplier Selection Process

SBRM - supplier-buyer relationship management

RO - Reason to outsource

β - Beta coefficients

ε_0 - Error term

β_0 - Constant value

According to Gujarat and Porter (2010), the assumptions of multiple linear regression models and the methods of testing the assumption were as follows:

No multicollinearity in the data. Multicollinearity occurs when the independent variables are too highly correlated with each other (Gujarat, 2010). Multicollinearity was checked using Tolerance (T). Tolerance measures the influence of one independent variable on all other independent variables. $T < 0.1$ indicates the existence of multicollinearity in the data. Another test performed was Variance Inflation Factor (VIF) which indicates the degree that the variances in the regression estimates are increased due to multicollinearity. $VIF > 10$ indicates presence of multicollinearity.

No autocorrelation in data. Autocorrelation occurs when the residuals are not independent from each other (Gujarat, 2010). In other words when the value of $y(x+1)$ is not independent from the value of $y(x)$. Durbin-Watson's (d) test was used to check for autocorrelation where'd' values between 0 and 4 indicate no autocorrelation.

The relationship between the independent and dependent variables must be linear. Scatterplots was used to test linearity assumption. Normality of variables. Multiple regression assumes that the residuals are normally distributed (Gujarat, 2010). This assumption was checked using a Normal Q-Q plot. Homoscedasticity assumption. This assumption states that the variance of error terms are similar across the values of the independent variables (Gujarat, 2010). Levene's Test was used to test this assumption.

CHAPTER FOUR

FINDINGs AND DISCUSSION ON FINDINGS

4.1 Overview

This chapter aims to present and analysis the data that was collected. The discussions and the findings in relation to study objectives were addressed in the chapter.

4.2 Response Rate

A response rate is the number of questionnaires that were filled and returned to the researcher in relation to the total number of questionnaires that were sent to respondents. Quantitatively, a total of 73 questionnaires were administered to conduct the study. The study noted that 62 questionnaires were returned complete and usable.

4.3 Basic Profile of Respondents

4.3.1 Respondents' Age and the Position Held in the Organization

Majority of the respondents were constables with the age ranging from 20 to 30 years. This clearly showed that the labour force, which is a constable rank, was young, fresh and energetic enough to expect high performance from them (**Error! Reference source not found.**).

Table 4.1: Age of Respondents and Position Held in the Organization

		Position held in the organization					Total
		Commissioner	Superintendent	Inspectorate	Non Commissioner Officer	Constable	
Age	20 to 30 years	0	0	4	2	26	32
	31 to 40 years	1	1	7	2	0	11
	41 to 50 years	1	0	0	4	0	5
	above 51 years	1	0	0	1	0	2
Total		**3**	**1**	**11**	**9**	**26**	**50**

Source: Researcher (2017)

4.3.2 Respondents' Education Level and the Position Held in the Organization

Majority of the respondents who were constables had an education level of at least diploma. This showed that the technical workers had required skills to perform technical tasks. The study learnt that those with higher ranks, who make decisions, also have ICT skills. Also all respondent with the rank of inspectorate had at least a first degree. This means that respondents were professionals (**Error! Reference source not found.**).

Table 4.2: Respondent Education Level and Position Held in the Organization

		Position held in the organization					Total
		Commissioner	Superintendent	Inspectorate	Non Commissioner Officer	Constable	
Education level	Certificate	1	0	0	6	7	14
	Diploma	0	0	0	2	9	11
	Advance diploma/degree	1	1	7	1	8	18
	Masters	0	0	4	0	2	6
	PHD	1	0	0	0	0	1
Total		**3**	**1**	**11**	**9**	**26**	**50**

Source: Researcher (2017)

4.3.3 Respondents' years in the organization

The study went on to seek the number of years the respondents had worked with the organization. It was found that majority of the respondents had more than 5 years with the organization followed by many who had 2 to 5 years while only 2 had 0 to 1 year with the organization. This shows that the respondents had enough knowledge about TPF.

4.4 Results of Validity and Reliability Measures of the Research Instrument

The research instrument was found to be valid based on the discussions with experts after dropping all ambiguous questions. Structured interviews were used to ensure validity. This allowed the researcher to cross check the accuracy of the information

provided previously. The Cronbach's Alpha scale reliability test revealed reliability coefficients which were reasonably closer to 1 as indicates Table 4.3. These were acceptable since they were above the cut off point which is 0.7. This was a good reliability with reference to Cronbach's Alpha description summary table of George and Mallery (2003). The research instrument was therefore reliable.

Table 4.3: Results of Reliability Test

Reliability Statistics		
Variables	**Cronbach's Alpha**	**N of Items**
Reasons to outsource	0.821	11
Supplier selection process	0.930	4
Supplier-buyer relationship management	0.752	3

Source: Researcher (2017)

4.5 The Relationship between ICT Outsourcing and TPF Cost Reduction

4.5.1 ICT Outsourcing for TPF Performance

The study sought to know the extent to which the respondents agreed with the given statements (**Error! Reference source not found.**) on ICT outsourcing (Supplier Selection Process, Buyer - Supplier Relationship management and reasons for TPF to outsource) for TPF performance. A 5 point Likert scale presented by Wilkinson and Birmingham (2003) was used in the questionnaire (5-strongly agree, 4-Agree, 3-Moderate, 2-Disagree and 1-Strongly disagree). According to majority of the respondents, TPF outsourced ICT projects for the wrong reasons including; corruption and self interest, politics and fear for accountability. This was emphasized by The Tanzanian newspaper, The Citizen, of April 24, 2016, which revealed a hot scandal about a contract between TPF and a private company, Lugumi Enterprises for the installation of 108 forensic machines across the country. A Controller and Auditor

General report said only 8 machines had been installed and just two were working despite payment of 99% (Sh 37 billion) of the contracted money. This was an outsourced ICT project (Automated Fingerprint Information System). The newspaper said, the report revealed that the contract was surrounded by nepotism, corruption and politics. This was in line with Elmuti *et al.* (2012) who said that outsourcing is not an excuse to wash management's hands of a poorly managed, costly or misunderstood function.

Table 4.4: ICT Outsourcing for TPF Performance

Supplier Selection Process of outsourced projects	**Mean**	**Standard Deviation**
Vender search takes a long time	4.44	0.99
TPF analyses organization requirements before outsourcing	4.84	0.37
Much time is spent on contract negotiation	1.32	0.84
There is a lot of nepotism/favouritism	4.88	0.33
Buyer – Supplier Relationship management		
Vendors have necessary equipment and technology	1.48	0.81
Management spends much time on outsourced services	1.80	0.97
Outsourcing partner has more experienced and highly skilled experts than internal staff	2.40	1.33
Reason to outsource		
Concentrate on core function	2.12	1.38
Cost saving	1.62	1.03
Free-up internal resources	2.14	1.39
Introduce new technology	3.18	1.34
To save time	2.86	1.40
Improved service levels	2.92	1.48
Lack of technical expertise	2.30	1.43
Flexibility	2.52	1.30
Politics	3.54	1.45
Corruption and self interest	4.22	1.28
Fear for accountability	4.66	0.52

Source: Researcher (2017)

Furthermore, respondents revealed that supplier selection process was surrounded by nepotism/favouritism and wrong organization requirements which led to choosing wrong vendors and poor contracts. This was in contrast with Mohamed and Iravo (2015) who said that supplier selection process took a lot of time because the organization wanted to find the outstanding contractor. Moreover, respondents showed that there was poor supplier-buyer relationship management at TPF. Management did not spend much time on outsourced services and outsourced partner. TPF had as more experienced and highly skilled internal experts as the vendors. Goolsby and Whitlow (2004) supported this by saying ineffective relationship management was the reason outsourcing arrangements failed to achieve full potential.

4.5.2 Cost reduction for TPF Performance

As for the outsourced ICT projects reducing total organization cost, the researcher was able to obtain some secondary data of cost of each outsourced project. As indicated in the Figure 4.4 clearly that outsourcing ICT projects at TPF was very expensive compared to a case when they would be carried out in-house.

Table 4.5: Secondary Data of the Cost of Outsourced ICT Projects

Outsourced project	Outsourcing costs	Inhouse costs
Automated Fingerprint Information System (AFIS)	37 billion	no available data
Traffic Management System – electronic ticketing (TMS)	1.5 billion	500 million
Last mile connectivity (fibre optics)	4.6 billion	300 million
Offender Management Information System (OMIS)	1.8 billion	100 million
Smart board	600 million	no available data
Call Centre	No actual value because there was no contract with any vendor. Work was done in form of piece work.	

Source: Researcher (2017)

This was in line with Baitheiemy (2013) who stressed that ICT outsourcing encounterered hidden costs for example, training costs, cost of updated outsourcing strategy, cost of poor and substandard quality (like what happen with the Lugumi contract), and cost of allowances.

Table 4.6: Correlation of the Study Variables

		OP	SSP	RM	RO	QS	RC	ICTO	IEM
OP	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	50							
SSP	Pearson Correlation	-.092	1						
	Sig. (2-tailed)	.526							
	N	50	50						
RM	Pearson Correlation	.376**	-.071	1					
	Sig. (2-tailed)	.007	.626						
	N	50	50	50					
RO	Pearson Correlation	.535**	-.025	.107	1				
	Sig. (2-tailed)	.000	.861	.458					
	N	50	50	50	50				
QS	Pearson Correlation	.910**	-.052	.337*	.471**	1			
	Sig. (2-tailed)	.000	.719	.017	.001				
	N	50	50	50	50	50			
RC	Pearson Correlation	.272	-.090	.218	.021	.073	1		
	Sig. (2-tailed)	.056	.532	.128	.884	.617			
	N	50	50	50	50	50	50		
ICTO	Pearson Correlation	.582**	.111	.345*	.958**	.519**	.062	1	
	Sig. (2-tailed)	.000	.443	.014	.000	.000	.039		
	N	50	50	50	50	50	50	50	
IEM	Pearson Correlation	.615**	-.009	.252	.471**	.353*	-.021	.503**	1
	Sig. (2-tailed)	.000	.951	.078	.001	.012	.887	.000	
	N	50	50	50	50	50	50	50	50
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

Source: Researcher (2017)

KEY: OP - organization performance SSP - Supplier Selection Process

RM - relationship management RO - Reason to outsource

QS - Quality of services RC - reduced cost ICTO - ICT outsourcing

IEM - Increased employee motivation

4.5.4 Discussion of Findings of the Relationship between ICT Outsourcing and Organization Cost Reduction

As noted, the contribution of ICT outsourcing on organization (TPF) cost reduction was statistically insignificant and negligible. Table 4.4 evidently showed how expensive the outsourced ICT projects were. Also 4.5 showed how respondents disagreed on the point that ICT outsourcing reduced organization total cost. These findings concurred with the study done by Alexander and Michael (2014) who noted that there was no statistical significant correlation between the degree of outsourcing and the annual savings.

Meaning that in their findings, there was a weak relationship between the degree of outsourcing and cost reduction. Another study whose findings concur with the current study was that done by Zafar and Aasim (2013). He noted that the vendor's inability to meet cost savings agreements and weaken the firm's ability to compete in costs, innovations and production process were the reason for most UK based companies to come back in-house.

On the other hand, the study conducted by Kotabe and Mol (2009) on the Netherland businesses found that outsourcing had a negative curvilinear effect on firm performance, such that there is an optimal degree of outsourcing and the cost of deviations became ever high when moving away from that optimum. As the levels of market uncertainty rose, the curve became steeper, and the cost of mistakes became high. Kotabe and Mol (2009) described how wrong governance choices were costly to an organization. In simple terms, making mistakes through too much or too little outsourcing is more costly if firms faced more market uncertainty. However, these

findings were in contrast with the findings by Karam *et al.,* (2014) who noted a very strong positive and significant relationship between reducing cost and outsourcing. Also the study done by Awino and Mutua, (2014) stated that in Kenyan public sector, Business Process Outsourcing had been mainly viewed as one of the cost cutting measures which made it a more cost effective way of operation, especially after the pressure from government for increased efficiency and self-sustenance had increased.

4.6 The Relationship between ICT Outsourcing and TPF Service Quality

4.6.1 Service Quality for TPF Performance

The study sought to know the extent to which the quality of services of outsourced ICT projects contributed to TPF performance (Table 4.7). According to majority of the respondents, to a minimal extent, vendors had shortened development life cycle. Outsourced projects were partly dependable and accurate. Nevertheless, outsourced projects had higher frequency of defects and vendors reluctantly responded in case of system/equipment malfunctioning

Table 4.7: Extent to which ICT Outsourcing was Considered to Improve Quality of Services

Statements	Mean	Standard Deviation
Vendors respond quickly in case of system/equipment malfunctioning	2.34	1.24
Vender has shortened development life cycle	2.94	1.41
Outsourced projects are dependable and accurate	2.62	1.07
Quality of documentation has increased with outsourcing	2.60	1.36
Outsourced projects have higher frequency of defects	3.38	1.32
Equipment's that come along with the outsourced system are safely installed, durable and with the expected specification	2.50	1.42
An average mean and Standard Deviation for all the above variables	**2.73**	**1.30**

Source: Researcher (2017)

4.6.2 The Relationship between ICT Outsourcing and Quality of Services for TPF Performance

Correlation analysis (**Error! Reference source not found.**) showed that there was a statistically significant relationship between ICT outsourcing and quality of services since its P- value = 0.000 was less than 0.01. The analysis indicated that the relationship between these variables was strong and positive scoring a correlation coefficient of 0.519 and a 99% precision level.

4.6.3 Discussion of Findings of the Relationship between ICT Outsourcing and TPF Service Quality

The findings of this study as indicated in **Error! Reference source not found.**, indicated a strong positive relationship between ICT outsourcing and TPF service quality. This means that increase or decrease in ICT outsourcing activities resulted in increase or decrease in TPF service quality. This was in line with the study performed by Yeboah (2013) which aimed to examine the relationship between outsourcing and organizational performance in the services sector of the economy of Ghana. Yeboah (2013) noted that there was a statistically significant correlation between outsourcing and quality.

Mohammed and Iravo (2015) examined the relationship between outsourcing and quality of services at Public Procurement Oversight Authority and found that outsourced services resulted in quality services. Yet the mean results of this study's respondents' perception (Table 4.7) on the effect of ICT outsourcing on the quality of services at TPF indicated a disagreement. Majority of the respondents didn't believe that ICT outsourcing improves service quality. These findings were in line with the

study performed by Beuve and Chever (2010) on Competition, Contract Design and Quality of Outsourced Services. That study found out majority of the respondents disagreed that outsourcing resulted in quality improvement. These findings were in contrast with the study done by Mohammed and Iravo (2015) in which majority of the respondents strongly agreed that outsourcing at Public Procurement Oversight Authority had lead to great quality improvement. There were a few research evidences that had reviewed the impact of outsourcing on quality of services. The quality of services depends mostly with the kind of strategies set in the contract and on how committed the organization in question is on its well being.

4.7 The Relationship between ICT Outsourcing and Employee Motivation

4.7.1 The Relationship between ICT Outsourcing and Employ Motivation for TPF Performance

Correlation analysis (**Error! Reference source not found.**) showed that the relationship between ICT outsourcing and employee motivation was statistically significant since it had a P- Value of 0.00 which is less than 0.01. The study noted that the relationship between ICT outsourcing and employee motivation was strong and positive as it had a correlation coefficient of 0.503 and a 99% precision level.

4.7.2 Employ Motivation for TPF Performance

The study sought to know the number of employees involved in the decision to outsource. Majority of the respondents were not involved in the decision to outsource. This majority was the most professional, skilled, and experienced that did all the technical work and ICT implementation at PHQ and all Police regions in Tanzania. Employees' response showed that staff morale had decreased with outsourcing (Table

4.8). Interview with selected individuals revealed that some of the IT experts tendered resignation with TPF because they felt they were underutilised professionally. The researcher was unable to collect secondary data on the number and trend of resignation because the Human Resource department didn't have the data. Some said being told that the organization decided to outsource because the internal staff was unskilled felt like a slap in the face. This is in line with Elmuti *et al.*, (2012) who said that the consequences of outsourcing were the deterioration of morale and loyalty among employees.

Table 4.8: Employee Motivation

	Mean	**Standard Deviation**
Most internal IT staff have skills due to outsourcing	2.50	1.43
Staff morale has decreased due to outsourcing	4.16	1.20
An average mean and Standard Deviation for all the above variables	3.33	1.32

Source: Researcher (2017)

4.7.3 Discussion of Findings from the Relationship between ICT Outsourcing and Employee Motivation

This study identified a statistically significant and positive relationship between ICT outsourcing and employee motivation as indicated in Table 4.8. Also the study noted that majority of the respondents showed that the morale of the workers had greatly decreased due to outsourcing. These findings were in line with the research conducted by Çiçek and Özer (2011) who noted that two-thirds of the employee respondents reported a loss of trust and declining morale, following restructuring. On the other hand, the study carried out by Adegbami *et al*., (2015) revealed that due to outsourcing, employees in Nigeria under the 'policy of wages reduction', employers labour without compromising the quality of services provided. In Nigeria, researchers

noted that employers preferred staff outsourcing to permanent staffing. Also Nigeria employee complained that their jobs were no longer rewarding and appreciating due to outsourcing. This study was in contrast with the research done by Li (2014), who revealed that employees' morale had increased since they had obtained skills from outsourcing.

4.8 ICT Projects Outsourced by Tanzania Police Force

The study wanted to know the ICT projects that were outsourced by TPF. Basing on questionnaires, and interview guide, respondents listed the following projects: Automated Fingerprint Information System (AFIS), Traffic Management System – electronic ticketing (TMS), Call Centre, Last mile connectivity and Offender Management Information System (OMIS) (Table 4.9).

Table 4.9: ICT Projects Outsourced by TPF

Outsourced project	Description	Percentage outsourced	Implementation, status and % of outsourcing
Automated Fingerprint Information System (AFIS)	A system that takes criminals'/offenders' fingerprints and sends the information to PHQ	90% outsourced	• Only 8 out of 108 Police stations had AFIS installed while the vendor had been paid 99% of the budget. • Only 2 machines were working
Traffic Management Information System – electronic ticketing (TMIS)	A system used to collect Traffic Offence fines electronically	50% outsourced	• Traffic earnings had increased exceedingly compared to before TMS. • Expenses like purchases of generators, petrol, POS and 5% for the vendor were high.
Call Centre	VPN Connection between Mobile operators and Police, Internal TPF communication Citizens communication	50% outsourced	• Completed and functioning.
Last mile connectivity (fibre optics)	Interconnection of Police stations to facilitate Police data and systems communications	80% outsourced	• A total of 22 among 151 Police stations had been connected by fibre optics.
Offender Management Information System (OMIS)	A system that combines all databases into a single shared database of offenders	80% outsourced	• Vendor has been paid 750 Million yet there is no progress on the project.

Source: Researcher (2017)

The study noted that these projects had been hampered by poor management leading to delivery delays, cost overruns and reduction in scope and benefits.

4.9 Testing the Assumptions of Multiple Linear Regression Model

Before running regression analysis, the assumptions of multiple linear regressions were tested.

4.9.1 Multcollinearity Test on Independent Variables

Table 4.10 indicates that the tolerance is greater than 0.1 (10%) and the Variance Inflating Factor (VIF) does not exceed 10. The study concluded that there is no problem of multicollinearity among predictor variables. Therefore, the associated regression coefficients were clearly estimated and reliable.

Table 4.10: **Results of Multicollinearity Test between Independent Variables**

Independent variable	Tolerance	VIF (Variance Inflating Factors)
Supplier Selection Process	0.995	1.005
Relationship management	0.984	1.016
Reason to outsource	0.988	1.012
N = 50		

Source: Researcher (2017)

4.9.2 Checking Linearity between Dependent and Independent Variables

The residual plots indicated that there was a random distribution of negative and positive values across the entire range of variables plotted on the horizontal axis as indicated in the Table 4.10. In other words, the points were scattered and there wasn't any obvious pattern. Therefore there was no reason to doubt the linearity assumption.

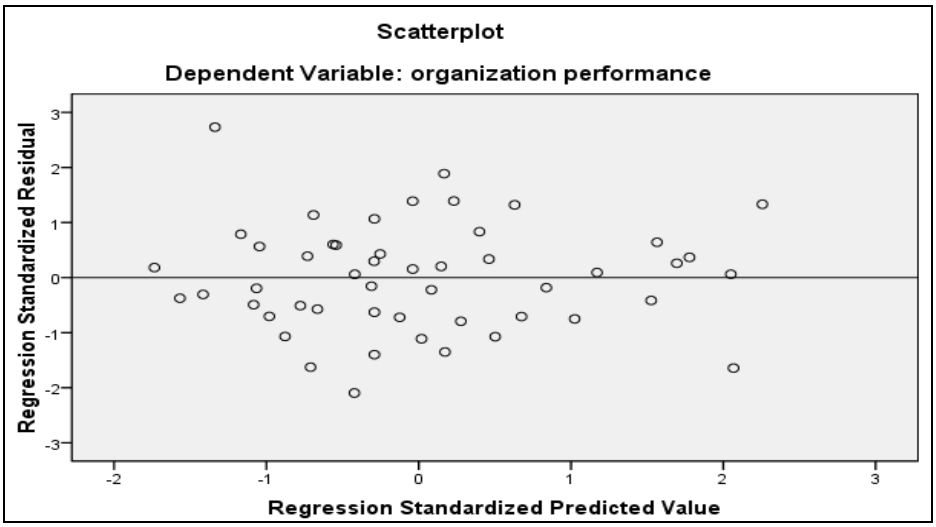

Figure 4.1: Linearity between Dependent and Independent Variables

Source: Researcher (2017)

4.9.3 Test of Autocorrelation Assumption

The results (Table 4. 11) showed that the Durbin Watson statistic was 2.501 which fell within the acceptable range (0-4). This implies that there was no serial correlation of residuals and therefore the model was correctly specified.

Table 4. 11: **Results of Autocorrelation Test**

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.501[a]	.251	.202	6.489	2.501

a. Predictors: (Constant), Reason to outsource, Supplier Selection Process, relationship management

b. Dependent Variable: organization performance

Source: Researcher (2017)

4.9.4 Test of Normality

The Table 4.11 indicated that the observed residual values lie closely with the diagonal line which presented a true normal distribution. Therefore the data for regression model showed normality.

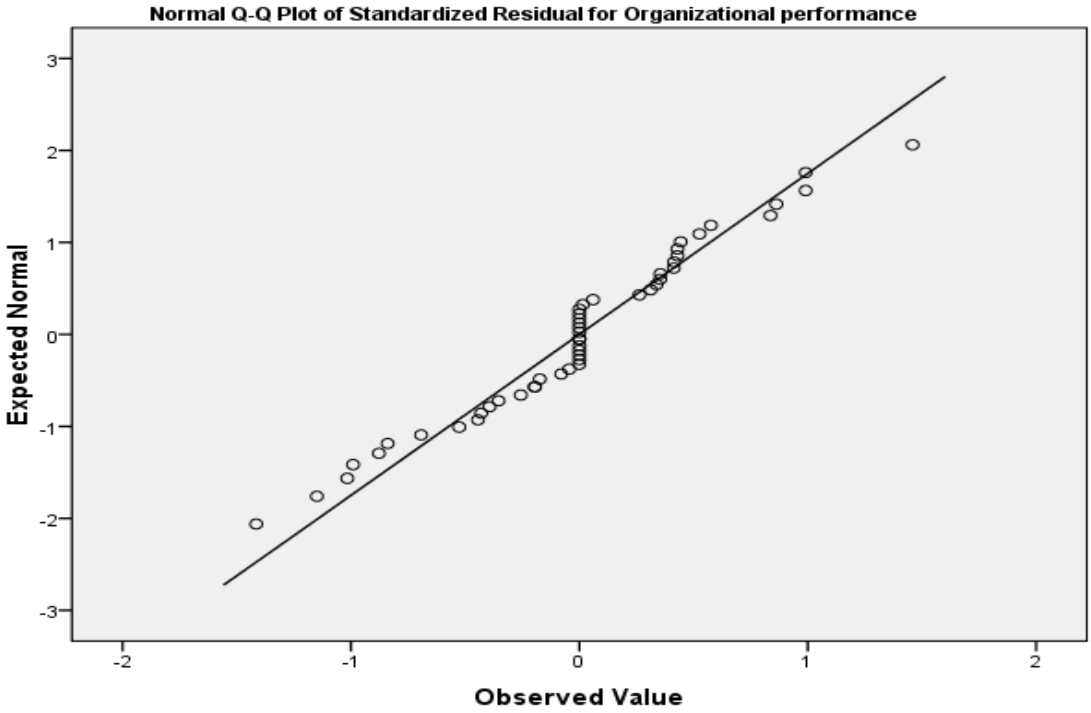

Figure 4.2: Test of Normality

Source: Researcher (2017)

4.9.5 Test of Homoscedasticity Assumption

Table 4.12 showed a P-value of 0.566 which indicated that there was no significant difference from an equality of variance across the values of the independent variables. So this assumption was satisfied.

Table 4.12: Test of homoscedasticity

Levene's Test of Equality of Error Variances[a]

Dependent Variable: organization performance

F	df1	df2	Sig.
1.076	46	3	0.566

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + RO + SSP + SBRM

Source: Researcher (2017)

4.10 Multiple Regression Analysis

The study went further and conducted a multiple linear regression analysis to determine the effect of ICT outsourcing on organizational (TPF) performance (Table 4.13). The regression model used was:

$$OPtpf = \beta_0 + \beta_1 SSP + \beta_2 SBRM + \beta_3 RO + \varepsilon_0.$$

The *R* value indicated that there was a strong relationship between the independent variables (Reason to outsource, Supplier Selection Process, supplier-buyer relationship management) and the dependent variable (Organizational Performance). The R-Square value indicated how much of the total variation in the dependent variable, TPF performance, can be explained by the independent variables, Reason to outsource, Supplier Selection Process and supplier-buyer relationship management. In this case, there was a variance of 39.2% between these variables. The coefficient of determination denoted by Adjusted R^2 showed that there was a proportion of the variance of 0.352 in the dependent variable, TPF performance that was predictable from the independent variables, Reason to outsource, Supplier Selection Process and supplier-buyer relationship management.

On the other hand,

Table **4.14** showed that the regression model predicted the dependent variable (TPF performance) significantly well. This was indicated by F(3,46)=9.887, P=0.0005< 0.05 hence presenting a significant goodness of fit between variables at 95% confidence level. Therefore, the regression model determined to predict TPF

performance from Reason to outsource, Supplier Selection Process and supplier-buyer relationship management was: Predicted TPF performance = 9.049 – (0.232 x Supplier Selection Process) + (0.781 x supplier-buyer relationship management) + (0.335 x Reason to outsource) + 0 (

Table **4.14**). From the regression model, it was found that organizational performance status at TPF would be at 9.049 holding Reason to outsource, Supplier Selection Process and supplier-buyer relationship management constant at zero (0). The study learnt that the relationship between supplier selection process and organizational performance was not significant as its P value is less than 0.05. This is also indicated in **Error! Reference source not found.**. Also the coefficient was negative which indicated that at TPF much time was spent on supplier selection hence decreasing performance of the organization at a unit of 0.232 per time spent. The study found that Reason to outsource in outsourcing ICT projects was statistically significant related to organizational performance at TPF as its P value is less than 0.01. **Error! Reference source not found.** indicated that the relationship between Reason to outsource and TPF performance was strong. The coefficient showed that for every good reason to outsource, the organization performance increased at a unit of 0.335, which is not that much an impact one can appreciate as it did not even amount to half. This means the reasons so far were not good enough. The study investigated the influence of supplier-buyer relationship management factors on organizational performance in outsourcing ICT projects; the evidence provided by Table 4.15, showed that TPF performance increased 0.781units for every unit supplier-buyer relationship management. This relationship was moderately strong and statistically significant as its P value was less

than 0.01. This was also indicated in **Error! Reference source not found.**. Without doubt, this indicated that there existed a positive relationship between effects of outsourcing ICT projects and organizational performance at TPF. It was evident that supplier selection process, supplier-buyer relationship management and reason to outsource were essential element in outsourcing of ICT projects that influences organizational performance at TPF. The findings were in line with Momme (2001), who stated that outsourcing is the process of establishing and managing a contractual relationship with an external supplier concerning provision of capacity that has previously been provided in-house.

Table 4.13: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.626[a]	0.392	0.352	3.960

a. Predictors: (Constant), Reason to outsource, Supplier Selection Process, supplier-buyer relationship management
Dependent: Organizational Performance

Source: Researcher (2017)

Table 4.14: ANOVA[b]

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	465.141	3	155.047	9.887	.000[a]
	Residual	721.339	46	15.681		
	Total	1186.480	49			

a. Predictors: (Constant), Reason to outsource, Supplier Selection Process, relationship management

b. Dependent Variable: organization performance

Source: Researcher (2017)

Table 4.15: Coefficients[a]

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.049	4.279		2.115	.040
	Supplier Selection Process	-0.232	0.473	-0.057	-0.491	0.626
	relationship management	0.781	0.285	0.318	2.747	0.009
	Reason to outsource	0.335	0.078	0.499	4.318	0.000
a. Dependent Variable: organization performance						

Source: Researcher (2017)

4.11 Success of Outsourced ICT Projects

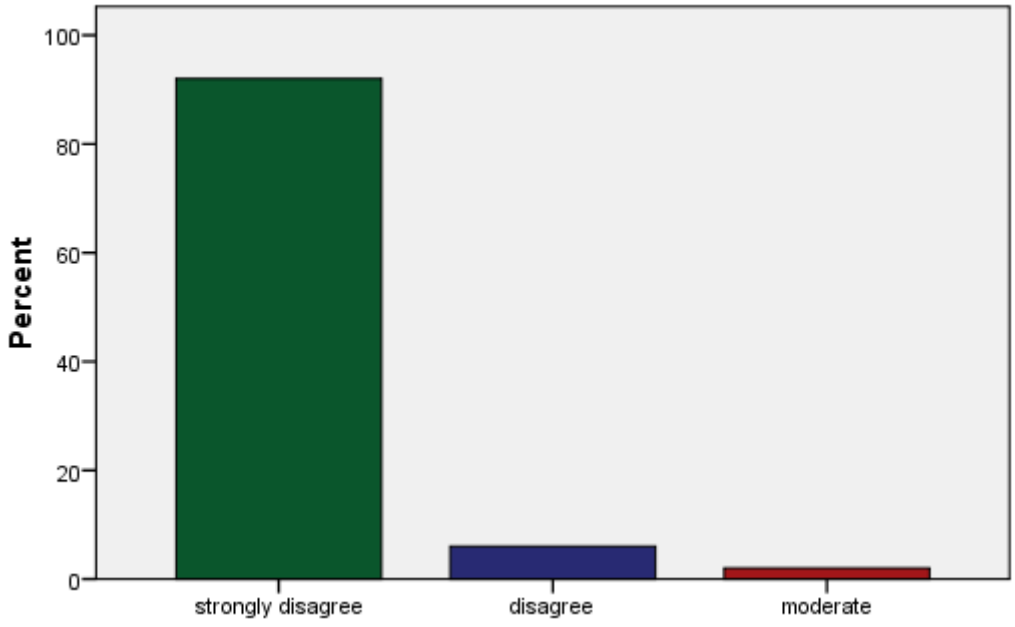

Figure 4.3: Success of Outsourced ICT Projects at TPF

Source: Researcher (2017)

The study sought to know the respondents' views on the success of the outsourced ICT projects at TPF. From the findings, 92% of the respondents indicated that outsourcing of ITC projects at TPF was greatly unsuccessful while 6% said the outsourcing was not successful, 2% said the outsourced ICT projects at TPF was moderately successful as none said it was successful in the Figure 4.3. The respondents further stated that the outsourced ICT projects had cost the organization billions of money and ongoing problems. The organization had outsourced ICT projects for wrong reasons, without well laid outsourcing strategies and well documented contracts. Contract negotiation involved few people who ddidn't have the needed skills and knowledge about ICT. Respondents added that there was no effective supervision and direction of the outsourced projects and contracts. This was in line with Piero and Michela (2012) who said that in order to decide on outsourcing and formulate a satisfactory outsourcing contract, it is fundamental to identify the "strategic intent" behind the choice to outsource.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Chapter Overview

The chapter contains conclusion of the study, recommendation of the researcher and areas for further research.

5.2 Conclusion

The main objective of this study was to examine the effect of ICT outsourcing on the performance of TPF. The findings revealed that the relationship between ICT project outsourcing and cost reduction was very weak. For that reason, the study concluded that the contribution of outsourced projects on reducing cost was negligible. The organization ended up spending millions and millions of money on projects that were not even half way accomplished and which would have been done in-house at a much cheaper cost. Work done and money Spent was indirectly proportional. This research learnt that there was a small group of people who benefited financially from the outsourced projects. Due to this, TPF lost credibility and earned a bad reputation to the public, in particularly, the Lugumi and AFIS project, which was a hot issue.

Furthermore, the findings indicated that ICT project outsourcing contributed positively towards service quality of the organization and employee motivation respectively. The study concluded that due to the fact that vendors did not have to wait for the government budget to do the work, projects were completed timely. Outsourced projects promoted employee experience and improved their skill to some

noticeable extent. On the other hand, the study learnt that leaders with higher ranks and power didn't have the necessary and needed skills and worse enough, didn't involve professionals in decision making and in the whole process of outsourcing ICT projects. The study concluded that this decreased employee morale.

From the analysis of the findings on the status of the outsourced ICT projects, the study concluded that outsourced projects didn't fulfil the required standards and specifications of TPF. Due to the wrong reasons to outsource and lack of seriousness and close supervision, the outsourced electronic ticketing project, TMS, was the only standing outsourced project, which at least made TPF credible. Traffic earnings in Dar es salaam region had increased tremendously since its implementation. However the study learnt that the system of this project was first designed and coded by software developers in TPF. But again due to 10%, self-interest and rankings, it was transferred to the vendor. The project was then facing a lot of challenges since the vendor needed 5% of the collected earnings while the equipments (POs, generators and printing papers) needed repair, replacement and purchasing.

In the light of the findings, the study found out that the outsourcing of ICT projects at TPF had contributed very little to the organization performance and credibility. The study learnt that due to nepotism, politics, rankings, corruption, fear for accountability, greedy and self-interest TPF selected wrong, incapable, inefficient and ineffective suppliers/vendors/contractors.

5.3 Recommendations

The study recommended that since ICT project outsourcing negligible reduced organizational cost at TPF, the organization should give the ICT department its full budget so that the projects which could have been done in-house at a much cheaper cost, be accomplished efficiently, effectively and more importantly in time. About the quality of outsourced ICT projects, the study recommended that procurement manager and ICT project manager together with some ICT professionals should be part of the committee in order to get the best supplier.

Since employee morale had decrease due to outsourcing ICT projects, the study recommended professionals in the field of ICT be involved in decisions to outsource. Professional advice and contributions should be taken into consideration, valued and documented. Activities in the Police Force that need skills, knowledge and professionalism like ICT, should be left to be carried out professionally by TPF professionals. The study recommended each project outsourced to have a project manager who has the skills about the project. This will make every project have supervision and more likely be accomplished in/on time and effectively.

5.4 Areas for Further Research

This study focused on assessment of the effect of ICT outsourcing on the performance of TPF. The study recommended future studies to be conducted in other areas to see if similar results will be obtained. Also the study recommended the same study be conducted in the same place (TPF) using a different methodology.

REFERENCES

Alexander, R., and Michael, Z. (2014). Outsourcing: A Cost-Saving Approach in FM? CIB Facilities Management Conference. Technical University of Denmark. Copenhagen.

Athuman, M. (2016). New twist in the Sh 37 billion Lugumi scandal. The citizen. Retrieved on 25th October 2017 from: [http://www.thecitizen.co.tz/News/ 1840340-3174028-l7rip4z/index.html].

Barthélemy, J. (2003). The Seven Deadly Sins of Outsourcing. *Academy of Management Executive, 17(2),* 87-100.

Brown, D., and Wilson, S. (2005). *The Black Book of Outsourcing.* Hoboken: John Wiley and Sons.

Buel, E., Herron, D., and Thompson, K. (2001). Outsourcing in the real world: stories from the front line. Cutter Consortium Executive Report. Retrieved on 10th June 2016 from: [www.cutter. com/consortium].

Cheshm, M. B., and Mortazavi, S. M. (2009). Effective outsourcing management, Ketab-e-Mehraban Publishers.

Choudhuri, B., Maguire, S., and Ojiako, G. U. (2009). Revisiting learning outcomes from market led ICT outsourcing. *Business Process Management Journal, 15(4),* 569-587.

Costa, C., and Beaumont, N. (2001). Information technology outsourcing in Australia: a literature review. *Information Management & Computer Security*, *9(5),* 213 – 224.

Creswell, J. (2003). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: SAGE Publications Inc.

Dabholkar, P. A., Shepherd, C. D., and Thorpe, D. I. (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study. *Journal of Retailing*. *13(2),* 336-345.

Dahlberg, T., and Nyrhinen, M. (2006). A New Instrument to Measure the Success of IT Outsourcing, in Helsinki School of Economics, Hawaii Proceedings of the 39th Annual Hawaii International Conference on. Hawaii, Honolulu.

Dehning, B., and Richardson, V. (2002). Returns on investments on information technology. *Journal of Information Systems, 6(1),* 7-30.

Dibbern, J., Goles, T., Hirschheim, R., and Jayatilaka, B. (2004). Information systems outsourcing: *A Survey and Analysis of the Literature, 35(4),* 6-102.

Donne, J. (1624). *No man is an island.* London: Folio Society Publishers.

Elger, D. (2007). Theory of performance. In S. W. Beyerlein, C. Holmes, & D. K. Apple, (Eds.), *Faculty guidebook: A comprehensive tool for improving faculty performance (4th ed.).* Lisle, IL: Pacific Crest.

Felix N. K., and Shale, N. I. (2016). Effects of Outsourcing on Organization Performance in Manufacturing Sector in Kenya European *Journal of Logistics, Purchasing and Supply Chain Management, 4(3),* 32-58.

Felix, Z. (2017). Agency Theory: A Critical Review. *European Journal of Business and Management. 9(2),* 2222-2839.

Georgopoulos, B., and Tannenbaum, A, (1957). A Study of Organizational Effectiveness. *American Sociological Review, 22(3),* 534-540.

Gerald, A., Sumari, G. M., and Christina, A. (2013). Outsourcing in Cooperatives in Tanzania. *European Journal of Business and Management, 5(15),* 45 – 59.

Goolsby, P., and Whitlow, L. (2004). Dynamic outsourcing through process modularization. *Business Process Management Journal, 15(2),* 225–244.

Grayson, D. (2004). Some Myths and Legends in Quantitative Psychology, 3(1), 101-134.

Gujarat, D. N., and Porter, C. P. (2010). *Basic Econometrics (5th Ed.)*. New York: McGraw-Hill Company.

Hirschheim, R. George, B., and Wong, S. F. (2004). Information Technology Outsourcing: The Move Towards Offshoring. *Indian Journal of Economics*. *1(3),* 103-124.

Hughes, D., and Merton, I. (1996). Partnership in produce: The J. Sainsbury approach to managing the process supply chain, Supply Chain Management. *An International Journal*, *1(2),* 1-4.

Işık, Ç. and Bilal, Ö. (2011). The effect of outsourcing human resource on organizational performance. *International journal of business and management studies, 3(2),* 1309-8047

Kakabadse, A., and Kakabadse, N. (2001). Outsourcing in the public services: A comparative analysis of practice, capability and impact. *Public Administration and Development, 21(5),* 401-413.

Kakabadse, A., and Kakabadse, N. (2002). Application service providers (ASPs): new impetus for transformational change. *Knowledge and Process Management*. *9(4),* 205-218.

Karam, K., Fariba, A., and Arash, A. (2014). Investigating the relationship between outsourcing and performance based on Balanced Score Card. *Journal of Data Envelopment Analysis and Decision Science, 2(1)* 1-11.

Kathleen, M. E. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review, 14(1),* 57-74.

Kern, T., and Willcocks, L. (2002). Exploring relationships in information technology outsourcing: the interaction approach. *European Journal of Information Systems, 11(1),* 3-19.

Laurance H. (2007). Managing Outsourcing Relationships, Masters Thesis Department of Organization & Strategy. Faculty of Economics and Business Administration, Tilburg University, Netherland.

Lacity, M. C., and Willcocks, L. P. (2001). *Global Information Technology Outsourcing: In Search of Business Advantage*. London: John Wiley and Sons.

Masaaki, K., and Michael, Mol, J. (2009). Outsourcing and financial performance: A negative curvilinear effect. *Journal of Purchasing and Supply Management, 15(4),* 205-213.

Maurice, M. O. (2017). Effects of Outsourcing on Organizational Performance in Kenya. *International journal of Advanced Research, 5(2),* 1626-1633.

Mohamed, A., and Arshad, N. H. (2013). ICT Outsourcing Information Security Risk Factors: An Exploratory Analysis of Threat Risks Factor for Critical Project Characteristics. *Journal of Industrial and Intelligent Information, 1(4),* 1-5.

Mohamud, H. M., and Amuhaya, I. (2015). Effects of outsourcing of non-core services on organizational performance. *International Journal of Business and Law Research, 3(2),* 96-109.

Momme, J. (2001). Outsourcing manufacturing to suppliers: PhD dissertation, Department of Production, Aalborg University, Aalborg, Denmark.

Mpambara, F., Uwamahoro, A. J., and Uwamahoro K. C. (2017). The Impact of Outsourcing Activities on Organizational Performance of a Private Company, a Case Study of Bralirwa Ltd. *East African Journal of Science and Technology, 7(1),* 133-145.

Novak, W. E., and Levine, L. (2010). Success in Acquisition: Using Archetypes to Beat the Odds. Technical Report, Software Engineering Institute, Pittsburgh, PA. Retrieved on 29th September 2017 from: [http://www.sei.cmu.edu/library /abstracts/reports/10tr016.cfm].

Oliver, E. W. (1981). The Economics of Organization: The transactions Cost *Approach American journal of sociology, 87(3),* 548-577.

Perunovic, Z., and Hanne W. N. (2007). A framework for studying how vendors utilize information and communication technologies across outsourcing processes. *International Business, Local Development and Science-Technology Relationships, 2(5),* 57 – 71.

Pfeffer, J. (1981). Power in organizations, Social Science. *American Journal of Sociology, 88(3),* 605-608.

Piero, M., and Michela, P. (2012). The Strategies of Outsourcing and Offshoring. *American International Journal of Contemporary Research, 2(9),* 1-12.

Pierre, J. R., Timothy, M. D., George, S. Y., and Gerry, J. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management. 35(2),* 718-804.

Policy Studies Institute, (2009). The Role and Responsibilities of the Police. The report of an independent inquiry established by he Police Foundation and the Policy Studies Institute. London: UK.

Saunders, M., and Thornhill, A. (2007). *Research methods for business students, 4th edition.* London: Prentice Hall.

Tushman, M. L. (1977). Special Boundary Roles in the Innovation Process *Administrative science quarterly, 22(4),* 587-605.

World Bank, (2002). Information & Communication Technology Sector Strategy Paper. Retrieved on 31st October 2017 from: [http://info.worldbank.org/ict/ICT_ssp.html].

Yeboah, A. (2013). The Relationship between Outsourcing and Organizational Performance. *European Journal of Business and Management*, *5(2),* 1-13.

Yuchtman, E., and Seashore, S. (1967). Factorial Analysis of Organizational Performance. *Administrative Science Quarterly, 12(3),* 377-395.

Zachary, B. A., and Jane, M. M. (2014). Business Process Outsourcing Strategy and Performance of Kenyan state corporations. *Journal of Emerging Trends in Economics and Management Sciences, 5(7),* 37-43.

APPENDIX

Appendix I: Questionnaire

Introduction

This questionnaire seeks to collect data on the effect of outsourcing ICT projects on the performance of Tanzania Police Force. The information that is to be obtained will only be used for academic purposes and will be treated with maximum confidentiality.

Basic profile of respondent: Please tick the appropriate circle					
1. Gender: Male ○ Female ○					
2. Age 20 to 30 years ○ 31 to 40 years ○ 41 to 50 years ○ Above 51 years ○					
3. Education Level: Certificate ○ Diploma ○ Advance diploma/degree ○ Masters ○ PHD ○					
4. Number of Years with Organization 0 to 1 years ○ 2 to 5 years ○ greater than 5 years ○					
5. Position held in the organization Commissioner ○ Senior superintendent ○ Superintendent ○ Assistant superintendent ○ Inspectorate ○ Non Commissioner Officer ○ Constable ○					
6. Were you involved in decision to outsource?	Yes ○ No ○				
7. Reason to Outsource (Please rate the degree of agreement on reasons to outsource at TPF)	Strongly disagree	disagree	moderate	agree	Strongly agree
	1	2	3	4	5
Concentrate on core function					
Cost Saving					

Freeing-up internal resources	
Introduce new Technology	
To save time	
Improved service levels	
Lack of Technical expertise	
Flexibility	
Politics	
Corruption and self interest	
Fear for accountability	
Please indicate others:	

Please indicate your degree of agreement with the outsourcing effect statements below on TPF performancer	Strongly disagree 1	disagree 2	moderate 3	agree 4	Strongly agree 5
8. Vender search takes a long time.					
9. TPF analyses organization requirements before outsourcing					
10. Much time is spent on contract negotiation					
11. There is a lot of nepotism/favouritism					
12. vendors have necessary equipment and technology					
13. Management spends much time on outsourced services					
14. Outsourcing partner has more experienced and highly skilled experts than internal staff.					
15. Vender has shortened development life cycle					
16. Outsourced projects have high frequency of defects.					
17. Equipments that come along with the outsourced system are safely installed, durable and with the expected specifications.					
18. Vendors respond quickly in case of system/equipment malfunctioning.					
19. Outsourced projects are dependable and accurate.					
20. Quality of documentation has increased since ooutsourcing.					
21. There is continuous					

improvement of the outsourced system.					
22. Outsourcing partner has reduced total cost					
23. Choosing wrong vendor has caused ongoing Problems.					
24. Staff morale has decreased with outsourcing.					
25. TPF has lost expertise with outsourcing.					
26. Most internal IT staffs have skills due to outsourcing.					
27. Cost of training internal IT staff increased after outsourcing functions					
28. Additional costs outside of contracts are high.					
29. Outsourcing vendor provided work within budget					
30. ICT projects outsourcing at TPF has been successful					

31. About the outsourced ICT projects/systems in your department

OUTSOURCED PROJECT	DESCRIPTION	IMPLEMENTATION, STATUS AND % OF OUTSOURCING	OUTSOURCING COSTS	COULD BE INHOUSE COSTS